

# VALIDITY OF THE GENUS EXOHALIOTIS

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Since the description of the Genus *Haliotis* by Linnaeus in the tenth edition of the *Systema Naturae* in 1758, there have been a number of proposed subdivisions. De Montfort, 1810, noting that no type had been designated by Linnaeus, utilized the Linnæan species *Haliotis asinina* as the type. As far as could be determined, all of the names covering the divisions of the genus have been based upon shell features alone, with little work on the anatomy. The only works noted on the soft parts dealt chiefly with biological projects, with little concerning the taxonomy.

The writer, while engaged in a systematic study of this marine family, had utilized the soft parts in checking the status of various species and subspecies. This led to the accumulation of the soft parts of a number of named genera and subgenera. The portion of the animal found most useful for rapid and accurate separation was the fleshy epipode encircling the muscular foot of the animal.

In most *Haliotids*, this epipode was of various widths and concave, with an upper and lower rim. These rims might be serrate, palmate, lobed, and with various forms of projections (processes). The concave portion might be smooth, granular papilose, papilae on papilae, or even processed with either single or multibranching projections. Thus it was easy to note the species separations, as seldom did two species have similar forms of the epipode. If so, the shells were distinct and separation carried out by that means. Thus, one worked with a combination of shell and animal.

It was rather interesting to find that a more or less common Australian species had an epipode that was separable from any other species examined. The South Australian and western Victorian species, *Haliotis cyclobates* Peron, 1816, had a narrow or singular rim-like epipode that was frilled with fine, more or less even processes. Perhaps a better description and comparison might be stated thus. Most of the *Haliotis* have a double-rimmed epipode with a concave area between the rims; whereas in the *Haliotis cyclobates* this is restricted to a single rim, without the concave area.

Cotton and Godfrey, in the *South Australian Naturalist*, Vol. XV, p. 16, Nov., 1933, proposed the subgenus *Exohaliotis*, with the *Haliotis cyclobates* as the type. Their diagnosis is as follows: "*Exohaliotis* (subgen. nov) shell subcircular, very convex, spire subcentral and comparatively extremely elevated; spirally lirate and radiately folded. Type *H. cyclobates* Peron." On pages 19 and 20 of this same publication further discussion as to size, range in depth and area, and coloration was carried out. Kangaroo Island was given as the type locality.

With such distinctive shell features found in no other *Haliotis*, and with animal that is also separable from any other *Haliotis*, it appears that the status of a full genus for the *Exohaliotis* is validated.

Appreciation for anatomical parts is given to Mr. George Pattison of Glenelg, South Australia, and to Miss Macpherson of the National Museum of Victoria, in Melbourne.

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